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EXAMINER
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FOX, BRYAN J

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2617

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## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 23-27 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kauser et al (US005724660) in view of Karmi et al (US20010053698).

Regarding **claim 23**, Kauser et al disclose a mobile location module (MLM) to determine the specific location of a mobile telephone (see column 5, lines 23-32) that uses the signal strengths of base stations received at the mobile (see column 6, lines 1-12) as well as GPS (see column 9, lines 19-29) for the location determination. The MLM receives the signal strength information (see column 6, lines 1-23) as well as the GPS information (see column 9, lines 19-29), which reads on the claimed, "receiving first location information from a first location finding equipment, wherein the first location information has first geographic location information," and, "receiving a second location

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information from a second location finding equipment, wherein the second location information has second geographic location information.” The MLM uses the information from the signal strengths and GPS to determine the location (see column 11, line 43 – column 12, line 21 and figure 10). Kauser et al discloses an error component associated with the estimate of the mobile telephone using the signal strengths (see column 7, lines 48-65) and an error component associated with the GPS measurements (see column 9, line 53 – column 10, line 65), which reads on the claimed, “first uncertainty information in a first format,” and, “second uncertainty information in a second format.” The error for signal strengths is an error in the distance from a station, while the error in GPS is in latitude and longitude (see column 7, line 48 – column 8, line 19 and column 10, lines 29-65), which reads on the claimed, “the first format and the second format are different.” Kauser also discloses an error associated with the combination of methods (see column 11, line 43 – column 12, line 21), which reads on the claimed, “converting at least one of the first uncertainty information or the second uncertainty information into a standard format; and using the first uncertainty information and the second uncertainty information to determine a reduced uncertainty associated with a location of a wireless station.” The GPS measurements with the signal strength measurements are used in order to give a more accurate location area estimate (see column 3, lines 10-15). Kauser fails to expressly disclose using the first uncertainty information and the second uncertainty information to determine a reduced uncertainty associated with a location of a wireless station, the reduced uncertainty having less uncertainty than either of the first and second uncertainty information

In a similar field of endeavor, Karmi et al disclose that the accuracy of a location system may be significantly improved by providing measurements from additional base stations, and by combining results, a more accurate determination of the position of the mobile station may be determined (see paragraph 25).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kauser with Karmi et al to include the above combining of results in order to obtain a more accurate position as suggested by Karmi et al (see paragraph 25).

Regarding **claim 24**, the combination of Kauser et al and Karmi et al disclose the use of circular regions in determining the location (see Kauser et al figures 5-7), which reads on the claimed, "converting at least one of the first uncertainty information or the second uncertainty information includes converting at least one of the first uncertainty information or the second uncertainty information into at least one circular region."

Regarding **claim 25**, the combination of Kauser et al and Karmi et al disclose an error associated with the signal strength method and an error associated with the GPS method (see Kauser et al column 7, line 48 – column 8, line 19 and column 10, lines 29-65). Kauser also discloses an error associated with the combination of methods (see Kauser et al column 11, line 43 – column 12, line 21), which reads on the claimed, "converting at least one of the first uncertainty information or the second uncertainty information in the standard format includes converting both the first uncertainty information and the second uncertainty information into the standard format."

Regarding **claim 26**, the combination of Kauser et al and Karmi et al disclose that the system is for determining the location of a mobile telephone (see Kauser et al column 3, lines 46-67), which reads on the claimed, "the wireless station comprises a telephone."

Regarding **claim 27**, the combination of Kauser et al and Karmi et al disclose determining the geographic location i.e. longitude and latitude (see Kauser et al column 9, lines 5-39), which reads on the claimed, "the first location information and the second location information comprises geographic coordinate information."

Regarding **claim 36**, the combination of Kauser et al and Karmi et al disclose the use of GPS (see Kauser et al column 9, lines 19-29), which reads on the claimed, "the first location finding equipment comprises GPS equipment."

Claims 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kauser et al in view of Tayloe et al (US005826188A).

Regarding **claim 28**, Kauser et al disclose a mobile location module (MLM) to determine the specific location of a mobile telephone (see column 5, lines 23-32) that uses the signal strengths of base stations received at the mobile (see column 6, lines 1-12) as well as GPS (see column 9, lines 19-29) for the location determination. The MLM receives the signal strength information (see column 6, lines 1-23) as well as the GPS information (see column 9, lines 19-29), which reads on the claimed, "receiving, at the system, a first location input based on first location information provided by the second location source, wherein the first and second sources use different location finding technologies; storing data relating to the first location input and the second

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location input in a memory accessible by the system.” The MSC can initiate a location function based on various criteria in the MLM (see column 5, lines 33-67). The MLM uses the information from the signal strengths and GPS to determine the location (see column 11, line 43 – column 12, line 21 and figure 10), which reads on the claimed, “obtaining the requested location information by retrieving the data relating to the first and second location inputs from the memory based on the location request.” The MLM the routes this information to the appropriate end user (see column 12, lines 22-35), which reads on the claimed, “outputting the requested location information to the wireless location application.” Kauser et al fails to expressly disclose using the first uncertainty information and the second uncertainty information to determine a reduced uncertainty associated with a location of a wireless station, the reduced uncertainty having less uncertainty than either of the first and second uncertainty information

In a similar field of endeavor, Karmi et al disclose that the accuracy of a location system may be significantly improved by providing measurements from additional base stations, and by combining results, a more accurate determination of the position of the mobile station may be determined (see paragraph 25).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kauser with Karmi et al to include the above combining of results in order to obtain a more accurate position as suggested by Karmi et al (see paragraph 25). The combination of Kauser et al and Karmi et al fails to disclose an interface for receiving a location request, wherein the interface is capable of receiving a plurality of

location requests from different applications in a plurality of different formats and is capable of converting the plurality of location requests into the standard.

In a similar field of endeavor, Tayloe et al disclose receiving requests in different network formats and converting them (see column 7, lines 54-65), which reads on the claimed, "the interface is capable of receiving a plurality of location requests from different applications in a plurality of different formats and is capable of converting the plurality of location requests into the standard."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kauser et al and Karmi et al with Tayloe et al to include the above ability to receive location requests in different formats in order to assist in inter-network handoffs as suggested by Tayloe et al (see column 2, lines 11-29).

Regarding **claim 30**, the combination of Kauser et al, Karmi et al and Tayloe et al discloses the error for signal strengths is an error in the distance from a station, while the error in GPS is in latitude and longitude (see Kauser et al column 7, line 48 – column 8, line 19 and column 10, lines 29-65), and an error associated with the combination of methods (see Kauser et al column 11, line 43 – column 12, line 21), which reads on the claimed, "converting at least one of the first uncertainty information or the second uncertainty information into a standard format; and using the first uncertainty information and the second uncertainty information in the standard format to determine a location of a wireless station."

Claims 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kauser et al in view of Karmi et al and Tayloe et al, as applied to claim 30 above, and further in view of Eizenhoefer (US005809424A).

Regarding **claim 32**, the combination of Kauser et al, Karmi et al and Tayloe et al fails to expressly disclose that receiving the location request further comprises receiving at least one specification regarding a quality of said requested location information.

In a similar field of endeavor, Eizenhoefer discloses that a location request includes an information element indicating the level of accuracy of location finding requested (see column 12, lines 21-37).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kauser et al, Karmi et al and Tayloe et al with Eizenhoefer to include the above indication of desired accuracy of a location in order to save system resources when the most accurate location is not needed.

Regarding **claim 33**, the combination of Kauser et al, Karmi et al and Tayloe et al fails to disclose that obtaining said requested location information comprises obtaining location information conforming to the specification.

In a similar field of endeavor, Eizenhoefer discloses choosing the method of location finding, e.g., call area finding or single location finding, etc. determined by the accuracy level requested in the location request (see column 12, lines 21-37).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kauser et al, Karmi et al and Tayloe et al with

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Eizenhoefer to include the above indication of desired accuracy of a location in order to save system resources when the most accurate location is not needed.

Regarding **claim 34**, the combination of Kauser et al, Karmi et al and Tayloe et al fails to expressly disclose that the specification defines an allowable accuracy of the location information.

In a similar field of endeavor, Eizenhoefer discloses that a location request includes an information element indicating the level of accuracy of location finding requested (see column 12, lines 21-37).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kauser et al, Karmi et al and Tayloe et al with Eizenhoefer to include the above indication of desired accuracy of a location in order to save system resources when the most accurate location is not needed.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kauser et al in view of Karmi et al, Tayloe et al and Eizenhoefer as applied to claim 32 above, and further in view of Singer et al (US005485163A).

Regarding **claim 35**, the combination of Kauser et al, Karmi et al, Tayloe et al and Eizenhoefer fails to expressly disclose the specification defines an allowable time parameter of the location information.

In a similar field of endeavor, Singer et al discloses that a request may include a request for tracking (see column 4, lines 33-47).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kauser et al, Karmi et al, Tayloe et al and Eizenhoefer to include the above ability to request tracking in order to provide the distance and direction of the mobile as well as the location as suggested by Singer et al (see column 4, lines 33-47).

### ***Response to Arguments***

Applicant's arguments with respect to claim 23-28, 30 and 32-36 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan J. Fox whose telephone number is (571) 272-7908. The examiner can normally be reached on Monday through Friday 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles N. Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bryan Fox  
April 1, 2007

  
CHARLES N. APPIAH  
SUPERVISORY PATENT EXAMINER